IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-20 (canceled).

21. (currently amended)A storage system comprising:

a plurality of host adaptors ~~connected~~ coupled to at least one host device, which form interfaces for the host device;

a plurality storage devices for storing therein data transferred from the host device;

a plurality of disk adaptors ~~connected~~ coupled to said storage devices, which form interfaces for said storage devices;

a cache for temporarily storing therein data transferred between said plurality of host adaptors and said plurality of disk adaptors;

two buses, ~~connected~~ coupled to said plurality of host adaptors, said plurality of disk adaptors, and said cache, which transfer data among said plurality of host adaptors, said plurality of disk adaptors, and said cache, wherein said two buses operate as a pair of buses having a transfer ability larger than one of said two buses; ~~and~~

a memory for storing a status of which of said two buses is available for use due to a failure in the other of said two buses.; and

a format converter for converting a first format of data sent from said

host device into a second format suitable for said storage devices and sending converted data of the second format to said cache through said two buses.

Claim 22 (canceled).

23. (currently amended)A storage system according to claim ~~22~~21, wherein said memory can be referred to by an external processor.

24. (currently amended)A storage system comprising:

a plurality of host adaptors ~~connected~~ coupled to at least one host device, which form interfaces for the host device;

a plurality of storage devices for storing therein data transferred from the host device;

a plurality of disk adaptors ~~connected~~ coupled to said storage devices, which form interfaces for said storage devices;

a plurality of caches for temporarily storing therein data transferred between said plurality of host adaptors and said plurality of disk adaptors;

two buses, ~~connected~~ coupled to said plurality of host adaptors, said plurality of disk adaptors, and said plurality of caches, which transfer data among said plurality of host adaptors, said plurality of disk adaptors, and said plurality of caches, wherein said two buses operate as a pair of buses having a transfer ability larger than one of said two buses; ~~and~~

a memory for storing a status of which of said two buses is available for

use due to a failure in the other of said two buses.; and

a format converter for converting a first format of data sent from said host device into a second format suitable for said storage devices and sending converted data of the second format to said cache through said two buses.

Claim 25 (canceled).

26. (previously amended) A storage system according to claim 24, wherein said memory can be referred to by an external processor.

27. (new): A storage system comprising:

a plurality of first logical units coupled to at least one host device, which form interfaces for the host device;

a plurality of storage devices for storing therein data transferred from the host device;

a plurality of second logical units coupled to said storage devices;

at least one cache memory unit for temporarily storing therein data transferred between said plurality of first logical units and said plurality of second logical units;

at least one pass, coupled to said first logical units, said plurality of second logical units and said at least one cache memory unit, which transfers data among said first logical units, said plurality of second logical units and said at least one cache memory unit, and

a format converter for converting a first format of data sent from said host device into a second format suitable for said storage devices, and sending converted data of the second format to said at least one cache memory unit through said at least one pass.

28. (new): A storage system according to claim 27, wherein said format converter is provided in said plurality of first logical units.

29. (new): A storage system according to claim 27, further comprising:

a shared memory unit which stores therein control information for controlling said first logical units, said plurality of second logical units and said at least one cache memory unit.

30. (new): A storage system according to claim 29, wherein said at least one cache memory unit has a plurality of cache memories arranged in a duplexed form, and said shared memory unit has a plurality of shared memories arranged in a duplexed form.

31. (new): A storage system according to claim 27, wherein said at least one pass is a duplexed common bus.

32. (new): A storage system according to claim 31, wherein said common bus includes:

a control information bus coupled to said first logical units and said second logical units, which transfers control information, and

a data transfer bus coupled to said first logical units, said second logical units and cache memory unit, which transfers data among said first logical units, said second logical units and cache memory unit.

33. (new): A storage system according to claim 27, wherein said format converter converts data of a count key data (CKD) format used in said host device into data of a fixed blocked architecture (FBA) format.

34. (new): A storage system according to claim 33, wherein said format converter converts data of the CKD format into data of the FBA format and adds an longitudinal redundancy check (LCD) code to the data of the FBA format thus converted, and said format converter fetches a part of physical address information data sent from said host device and generates a logical address of a logical storage device which is formed by said storage devices.

35. (new): A storage system according to claim 27, wherein said first logical units receives physical address information, data of the CKD format and a cyclic redundancy check (CRC) code on a storage space of said storage devices, and

wherein said format converter converts data of the CKD format into data of the FBA format, fetches the physical address as a part of the data and generates a

logical address on said storage devices, and then writes the data thus converted into said cache memory unit through said pass.

36. (new): A storage system according to claim 27, wherein said format converter, at a time of writing said data thus converted into said cache memory unit, adds an error correction code (ECC) to said data and then writes said data thus added with the ECC into said cache memory unit, and

wherein when said second logical unit receives the data thus converted from said cache memory unit through said path, said second logical unit adds a CRC code to said data received and writes said data thus added with the CRC code into said storage device.

37. (new): A storage system comprising:

a plurality of first logical units coupled to at least one host device, which form interfaces for the host device;

a plurality of storage devices for storing therein data transferred from the host device;

a plurality of second logical units coupled to said storage devices;

at least one cache memory unit for temporarily storing therein data transferred between said plurality of first logical units and said plurality of second logical units; and

at least one pass, coupled to said first logical units, said plurality of second logical units and said at least one cache memory unit, which transfers data among

said first logical units, said plurality of second logical units and said at least one cache memory unit,

wherein said plurality of first logical units includes a format converter for converting a format of data sent from said host device into a format suitable for said storage devices, and sending converted data of the format suitable for said storage devices, to said at least one pass; and

wherein said cache memory unit then stores therein the data thus sent through said at least one pass.

38. (new): A storage system according to claim 37, wherein said at least one pass is a duplexed common bus.

39. (new): A storage system according to claim 38, wherein said common bus includes:

a control information bus, coupled to said first logical units and said second logical units, which transfers control information; and

a data transfer bus, coupled to said first logical units, said second logical units and cache memory unit, which transfers data among said first logical units, said second logical units and cache memory unit.

40. (new): A storage system according to claim 37, wherein said format converter converts data of a CKD format used in said host device into data of a FBA format.

41. (new): A storage system according to claim 40, wherein said format converter converts data of the CKD format into data of the FBA format and adds an LRC code to the data of the FBA format thus converted, and said format converter fetches a part of physical address information data sent from said host device and generates a logical address of a logical storage device which is formed by said storage devices.

42. (new): A storage system according to claim 37, wherein said first logical units receive physical address information, data of the CKD format and a CRC code on a storage space of said storage devices, and

wherein said format converter converts data of the CKD format into data of the FBA format, fetches the physical address as a part of the data and generates a logical address on said storage devices, and then writes the data thus converted into said cache memory unit through said at least one pass.